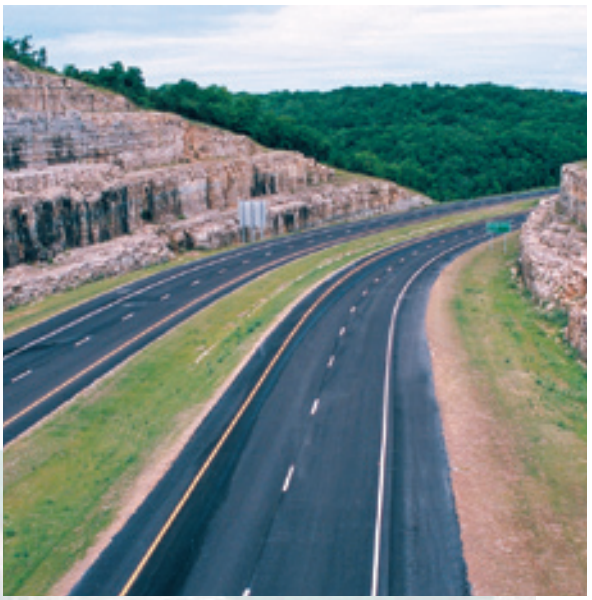
Roadway Visibility

Tangible Result Driver – Don Hillis, Director of Operations

Good roadway visibility in all weather and light conditions is critical to safe and efficient travel. MoDOT will delight its customers by using top-quality and highly visible stripes and signs.



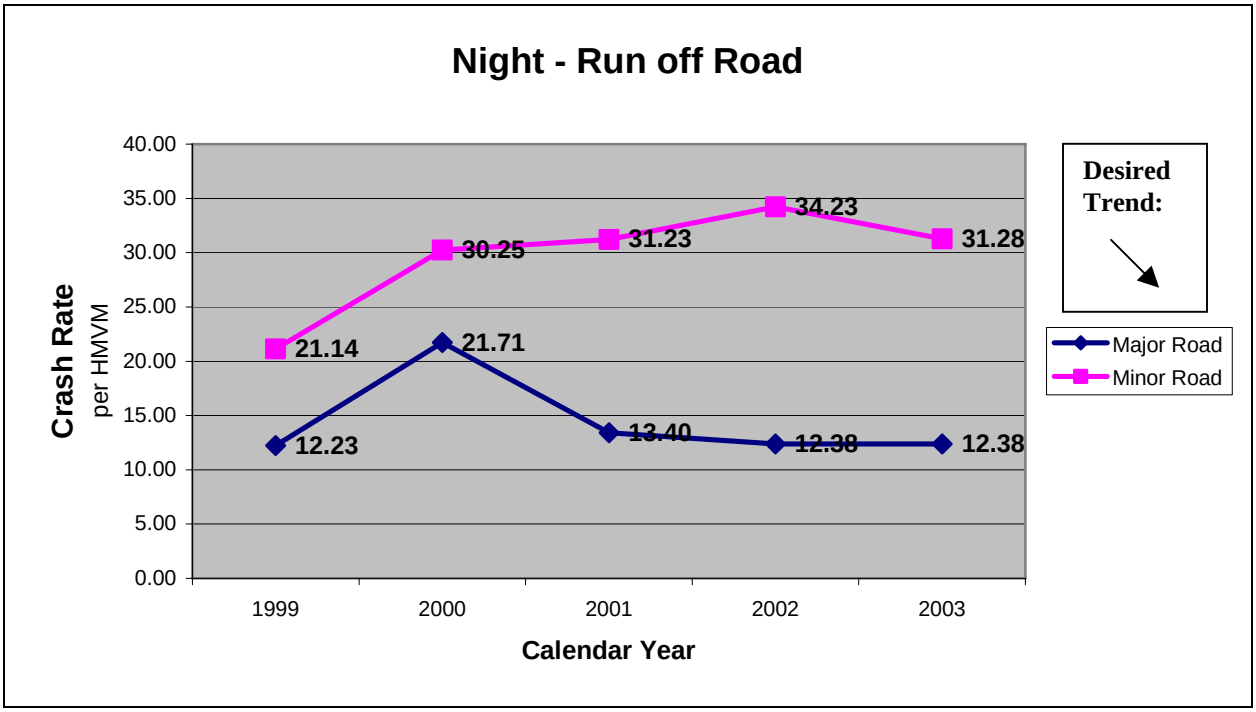
Roadway Visibility

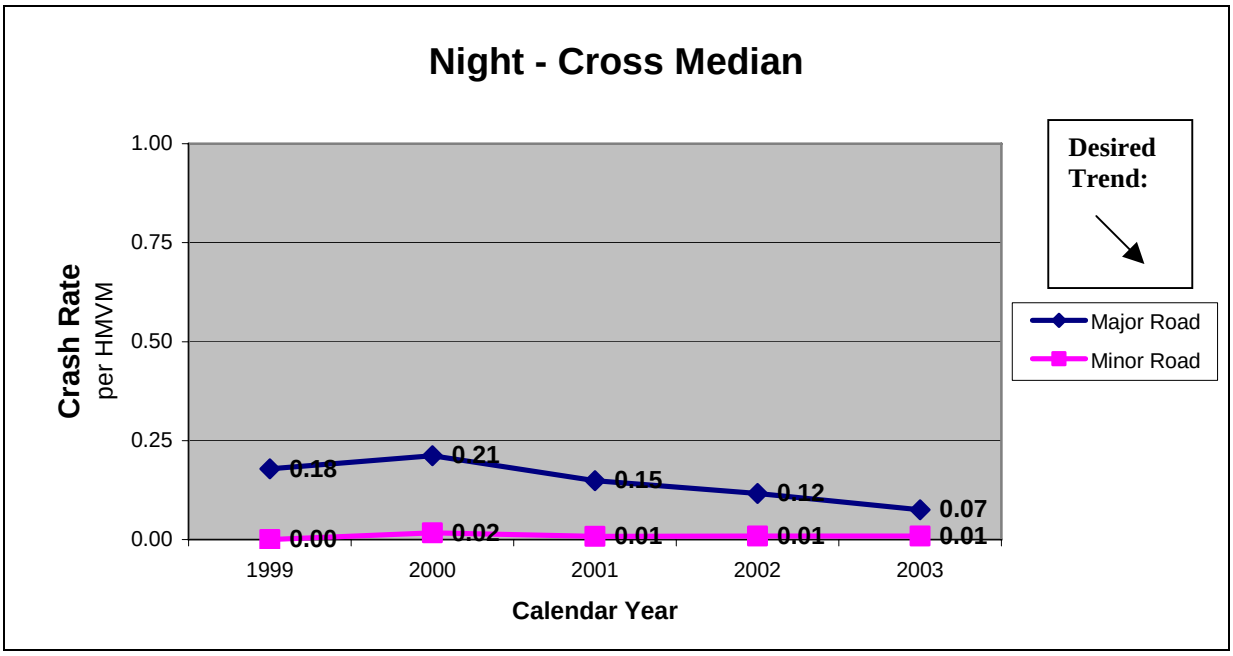
Rate of nighttime crashes

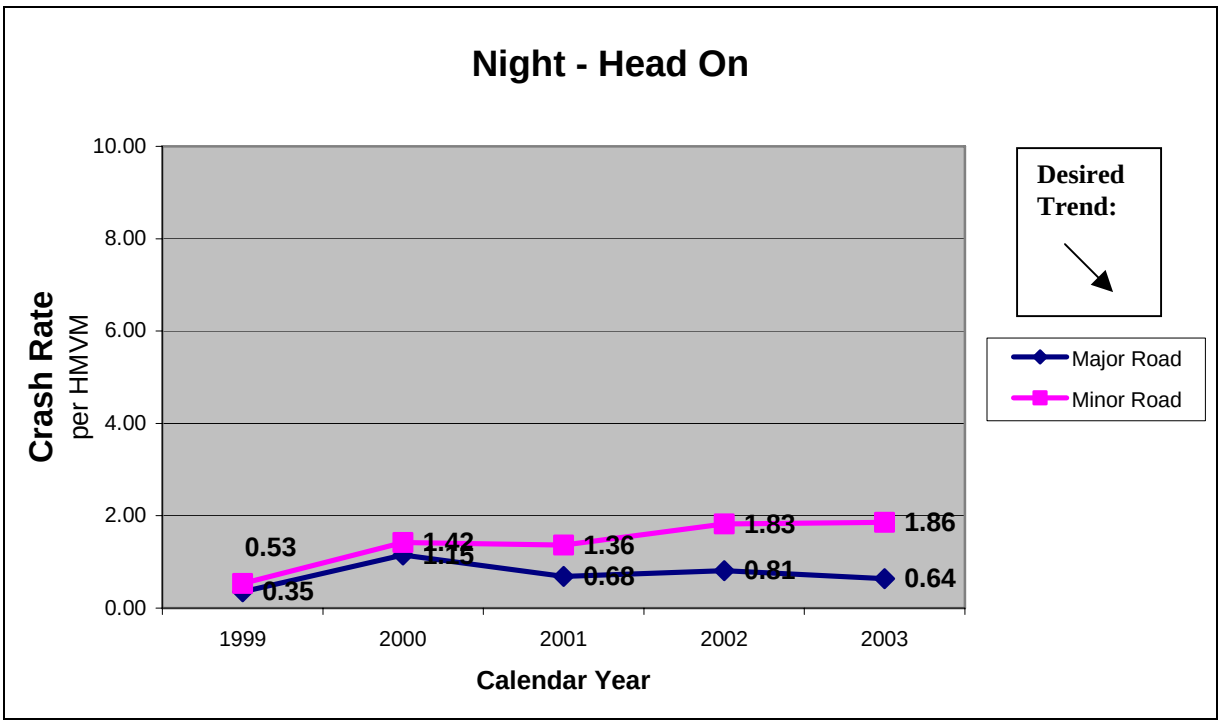
Results Driver: Don Hillis, Director of Operations
Measurement Driver: Michael Curtit, Assistant State Traffic Engineer

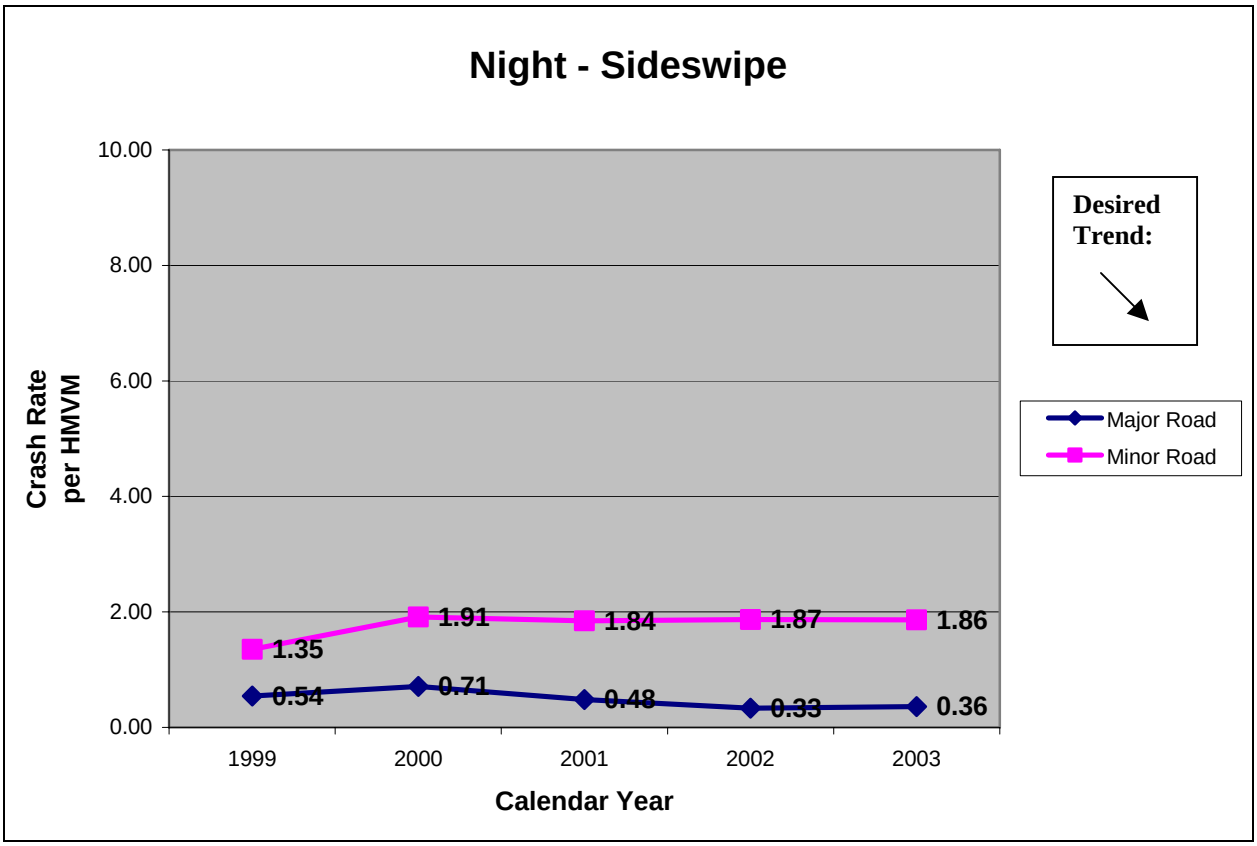
Purpose of the Measure:
This measure tracks the types of crashes where visibility of stripes and signs may be a contributing factor.

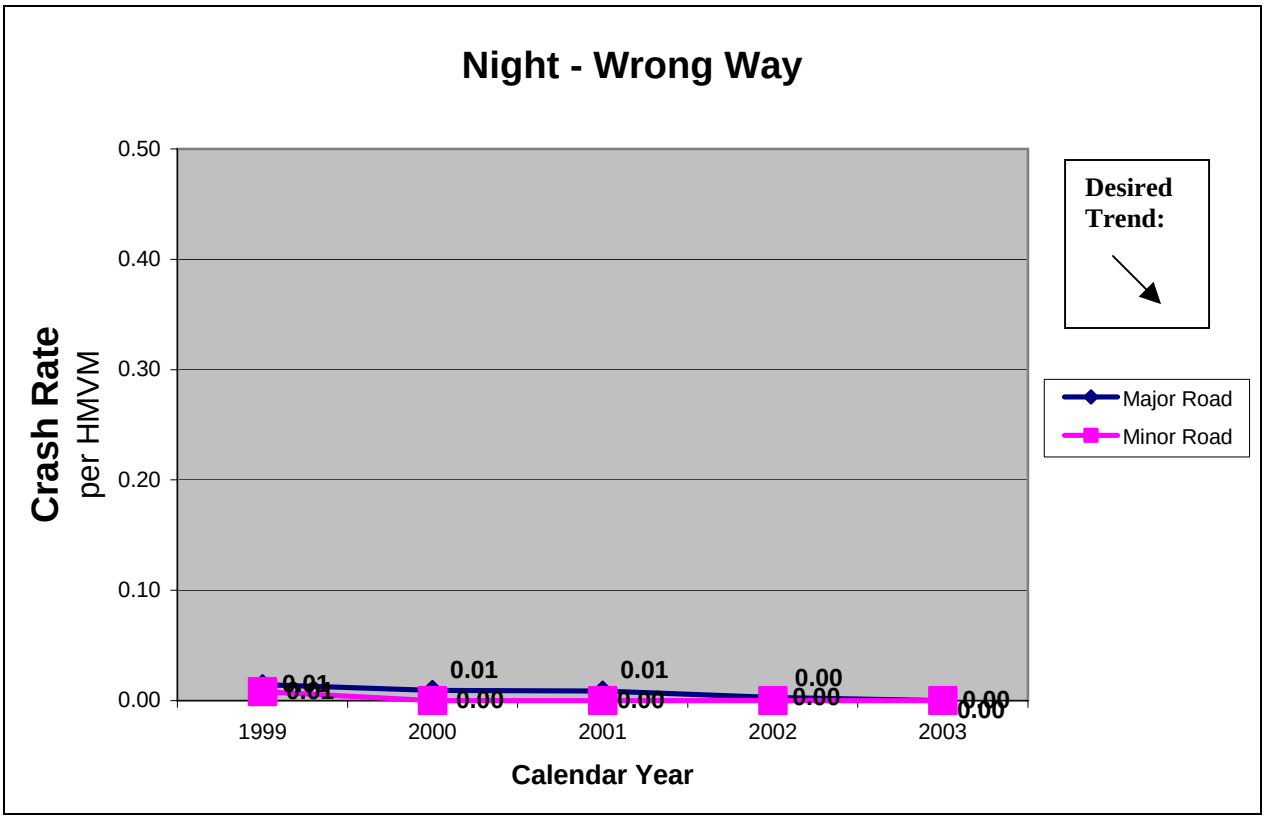
Measurement and Data Collection:
Data is collected from the statewide crash database. This data is filtered to identify crashes that occur during night conditions. Further filtering of the data divides these night crashes by major and minor roadways. From there crash rates for the different types of crashes are calculated. The crash rates are calculated using the Average Annual Daily Traffic (AADT) counts and are expressed in the unit, per 100 million vehicle miles (HMVM), which is the national standard for expressing crash rates.




Night - Cross Median
Crash Rate
per HMVM
1.00
0.75
0.50
0.25
0.00
0.18
0.21
0.15
0.12
0.07
0.00
0.02
0.01
0.01
0.01
1999
2000
2001
2002
2003
Calendar Year
Desired Trend:
Major Road
Minor Road


Night - Head On
Crash Rate
per HMVM
10.00
8.00
6.00
4.00
2.00
0.00
0.53
1.42
1.36
1.83
1.86
0.35
1.15
0.68
0.81
0.64
1999
2000
2001
2002
2003
Calendar Year
Desired Trend:
Major Road
Minor Road


Night - Sideswipe
Crash Rate per HMVM
10.00
8.00
6.00
4.00
2.00
0.00
1999
2000
2001
2002
2003
Calendar Year
1.35
1.91
1.84
1.87
1.86
0.54
0.71
0.48
0.33
0.36
Desired Trend:
Major Road
Minor Road


Night - Wrong Way
Crash Rate per HMVM
0.50
0.40
0.30
0.20
0.10
0.00
1999
2000
2001
2002
2003
Calendar Year
0.01
0.01
0.01
0.00
0.00
0.00
0.00
0.00
0.00
Desired Trend:
Major Road
Minor Road

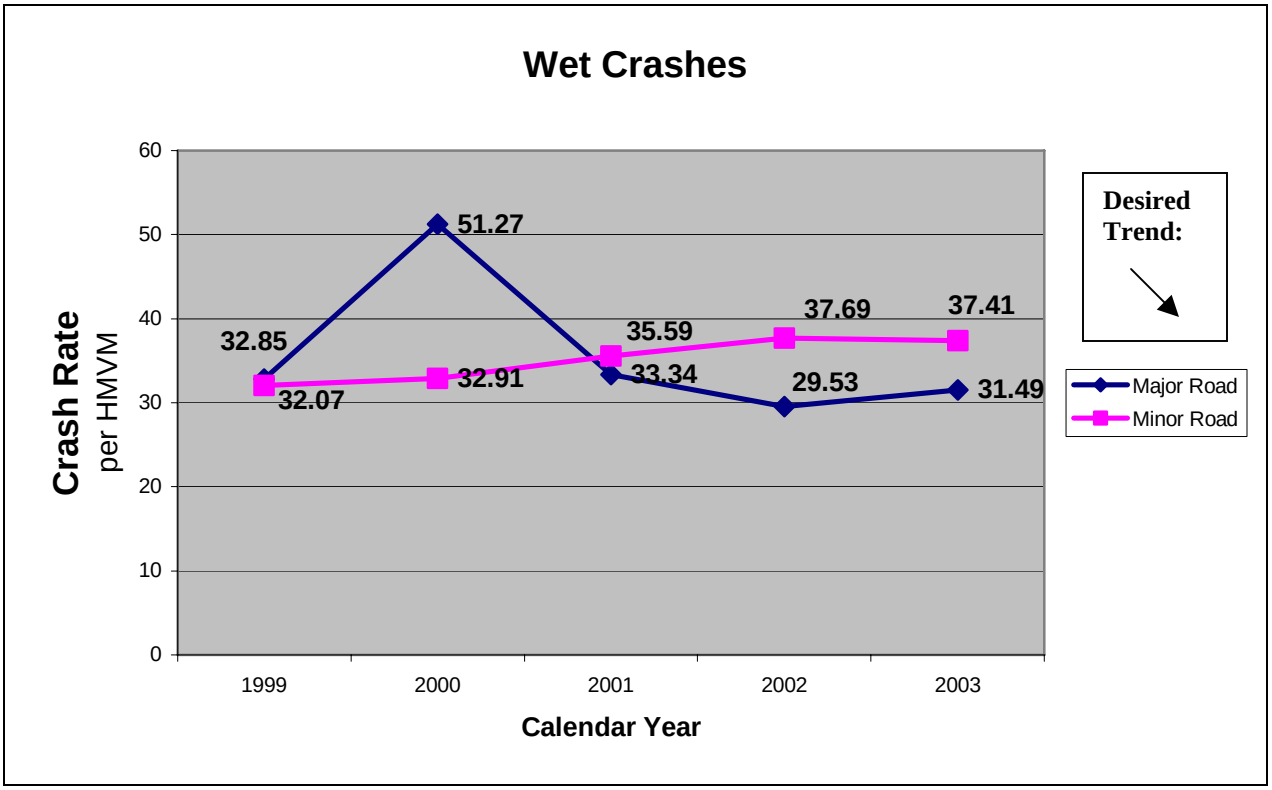
Roadway Visibility

Rate of wet weather crashes

Results Driver: Don Hillis, Director of Operations
Measurement Driver: Michael Curtit, Assistant State Traffic Engineer

Purpose of the Measure:
This measure tracks the rate of crashes that have occurred on the state system during wet weather conditions.

Measurement and Data Collection:
Data is collected from the statewide crash database. This data is filtered to identify crashes that occur during wet weather conditions. Further filtering of the data divides these wet weather crashes by major and minor roadways. The crash rates are calculated using the Average Annual Daily Traffic (AADT) counts and are expressed in the unit, per 100 million vehicle miles (HMVM), which is the national standard for expressing crash rates.



Roadway Visibility

Percent of signs that meet our customers' expectations

Results Driver: Don Hillis, Director of Operations
Measurement Driver: Jim Brocksmith, Technical Support Engineer

Purpose of the Measure:
This measure will track whether the department's sign policy and the design standards, and sign replacement policy is resulting in visible signs that meet customers' expectations.

Measurement and Data Collection:
To date a list of sign quality attributes has been developed and approved based on an industry-wide literature review. The attributes selected for this measure will be used to develop a quality assurance checklist for signage. Data collection for this measure will be based on randomly generated road segments and collected on an annual basis beginning Fall 2005. MoDOT Maintenance employees will be responsible for data collection and analysis.

Measure is Under Development

Roadway Visibility

Percent of stripes that meet our customers' expectations

Results Driver: Don Hillis, Director of Operations
Measurement Driver: Jim Brocksmith, Technical Support Engineer

Purpose of the Measure:
This measure will track whether MoDOT's striping policy and processes and materials used are resulting in visible stripes that meet customer's expectations.

Measurement and Data Collection:
To date a list of striping quality attributes has been developed and approved based on an industry-wide literature review. The attributes selected for this measure will be used to develop a quality assurance check-list for road striping. Data collection for this measure will be based on randomly generated road segments and collected on a bi-annual basis beginning Fall 2005. MoDOT Maintenance has contracted the collection of this data.

Roadway Visibility

Percent of work zones that meet customer expectations for visibility

Results Driver: Don Hillis, Director of Operations
Measurement Driver: Pat McDaniel, Technical Support Engineer

Purpose of the Measure:
This measure will help the department meet the expectations of MoDOT customers concerning the visibility of work zones.

Measurement and Data Collection:
Using a formal inspection checklist, each district work zone coordinator will be required to rate at least ten work zones per month within their respective district, and the Central Office and district engineering staffs will be required to perform inspections of any work zones that they pass through. Data collection will begin on June 1, 2005.

Measure is Under Development